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TWO NEW SPECIES OF NOCTUIDS
(LEPIDOPTERA, NOCTUIDAE, NOCTUINAE)¹

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The species of *Abagrotis* described here was set aside as new in the fall of 1960. Sometime later, Mr. John S. Buckett of the University of California, Davis, indicated that he intended to revise the genus *Abagrotis*. We agreed that I would publish the description of the new species from Madera Canyon, Arizona.

A grant (No. 303-Johnson Fund) from the American Philosophical Society made possible the collecting in Madera Canyon during the summer of 1960, and a grant (No. 3339-Penrose Fund) also from the American Philosophical Society made possible the collecting in Madera Canyon during the spring of 1963. This assistance is gratefully acknowledged.

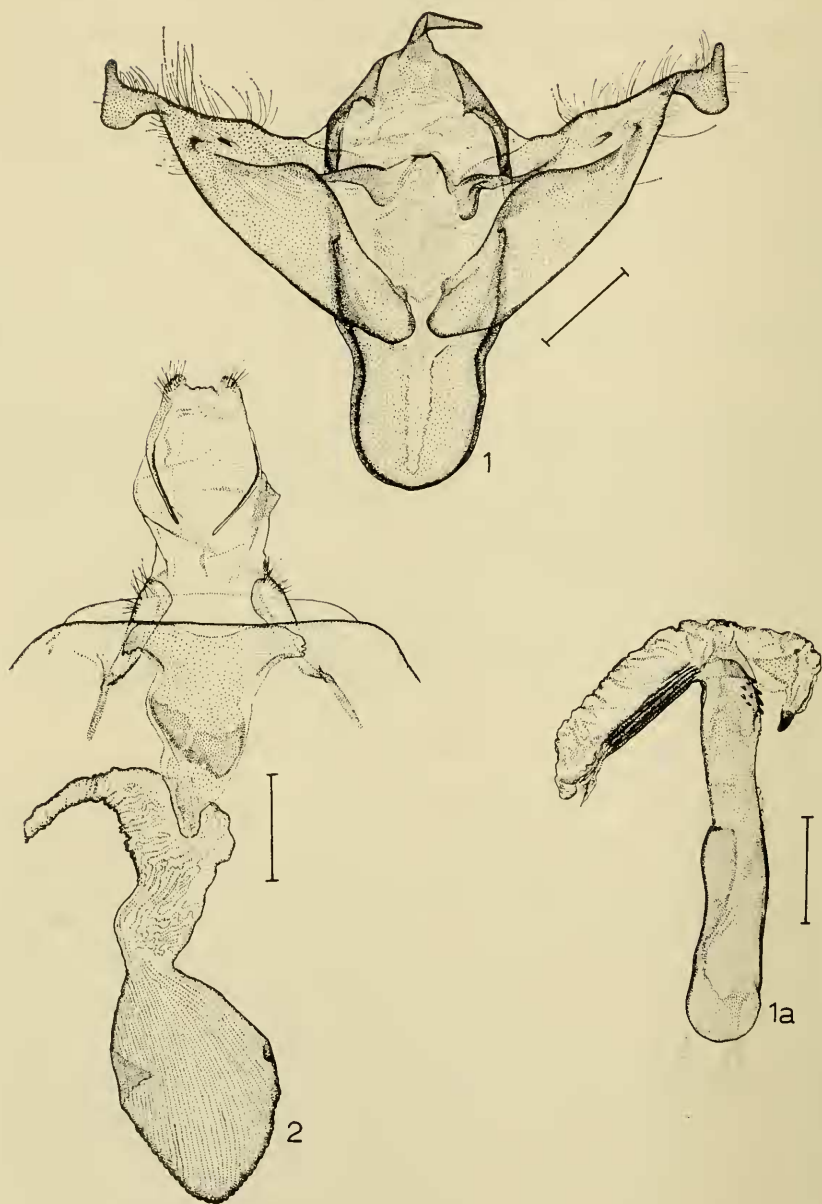
The drawings are by Mrs. Margaret A. Menadue.

Abagrotis alampeta, n. sp.

A dark, rather obscurely marked species, with the male genitalia somewhat similar to *alcandola* Smith, 1908, p. 288 (= *tristis* Barnes and McDunnough, 1912, p. 8, pl. 1, fig. 17), but easily separated by its simple antennae; those of the male of *alcandola* are serrate.

Description: Male with head, thorax, and forewings above deep fuscous or brownish black, the scales pale tipped, giving a frosted appearance. Palpi with first and second segments, except apex of second, black; a broad black band from behind eye to base of forewing, a small triangular black patch in front of eye; the overall effect, a black band beginning on the palpi and ending at the base of the forewing. Patagia with a line of pale, whitish scales on the dorsal margin, a second line of pale scales about one-third below dorsal margin, immediately below this a band of black scales; anterior tuft of thorax low, apex black and a narrow band of black scales below this. Forewing with the markings somewhat indistinct; basal half-line pale with dark marginal lines; antemedial line pale with dark marginal lines, irregularly crenulate, outwardly oblique from costal margin to inner margin; postmedial line pale with dark marginal lines, slightly and irregu-

¹ Immediate publication secured by full payment of page charges—Editor.



Figs. 1-2. *Abagrotis alampeta*. Scale 1 mm. 1, paratype, male genitalia, slide: JGF 4519; 1a, paratype, aedeagus, slide: JGF 4517; 2, paratype, female genitalia, slide: JGF 4518.

larly crenulate, excurved below costa, then incurved at Cu_1 and Cu_2 , then almost straight to inner margin; orbicular circular with a vague, pale annulus; reniform moderately large, with a vague, pale annulus; subterminal vague, pale, somewhat irregular; subterminal area pale; terminal line a series of vague, blackish bars; fringe concolorous with subterminal area. Hindwing and dorsum of abdomen fuscous; hindwings paler toward base; veins dark scaled; fringe with a light yellowish fuscous line at base, followed by a dark fuscous line, outer half white (does not show well in the photographs). Wings below, light fuscous with a frosted appearance except on the disk of the forewings, some black scales intermixed, especially on the costal areas of the forewings. Anal tuft of abdomen reddish brown.

The males show some variation in the amount of pale scaling on the basal and costal areas of the forewing and in the distinctness of the annuli of the reniform and orbicular. The general color may be reddish in some specimens.

The females are generally paler than the males and with a decidedly yellowish gray cast; some are very reddish, but this color phase is not common; about ten to twelve percent of the Madera Canyon population exhibit it.

Expanse: 33–38 mm.

Male genitalia as figured. The aedeagus with a group of short, stout spines at apex; the vesica armed with a single stout cornutus and a long, broad, ridged, sclerotized plate.

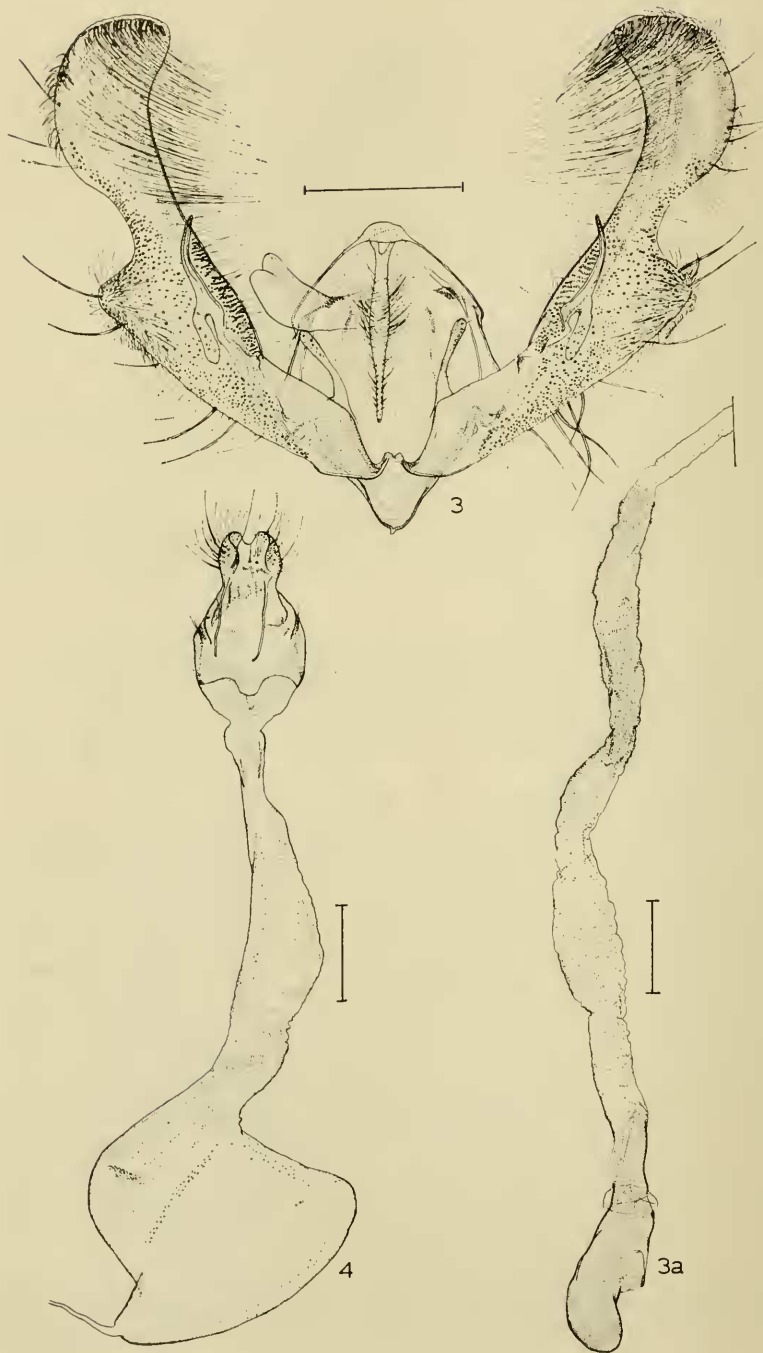
Female genitalia as figured.

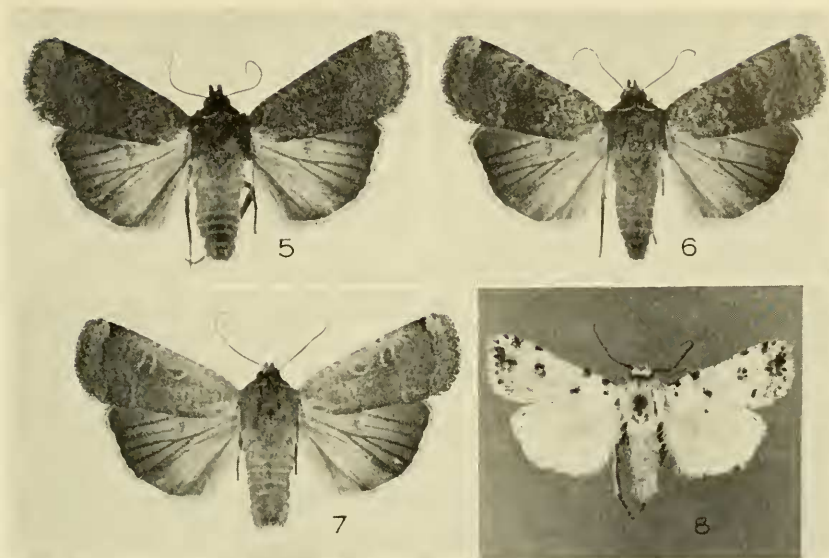
Described from 167 males and 204 females from Madera Canyon in the Santa Rita Mountains of southeastern Arizona.

TYPE: Male. Madera Canyon, 4880', Santa Rita Mts., Santa Cruz Co., Arizona 6 May 1963, J. G. Franclemont. In Franclemont Collection.

PARATYPES: 166 Males: 51, Madera Canyon, 5600'; Santa Rita Mts., Santa Cruz Co., Arizona, 15 June–11 July 1960; 74, Madera Canyon, 5600'; and 41, Madera Canyon, 4880', Santa Rita Mts., Santa Cruz Co., Arizona, 20 April–23 May, 1963. 204 Females: 1, Madera Canyon, 5600', Santa Rita Mts., Santa Cruz Co., Arizona, 8 October 1959; 91, Madera Canyon, 5600'; Santa Rita Mts., Santa Cruz Co., Arizona, 15 June–15 July 1960; 61, Madera Canyon, 5600'; and 51, Madera Canyon, 4880', Santa Rita Mts., Santa Cruz Co., Arizona, 20 April–27 May 1963; all collected by J. G. Franclemont. Paratypes will be distributed to the United States National Museum, the British Museum (Natural History), the Canadian National Collection, the American Museum of Natural History and the Los Angeles County Museum of Natural History; the majority will be retained in the Franclemont Collection; two are at present in the Bauer–Buckett Collection, Davis, California and others will be deposited in that collection.

The species has also been collected in Cave Creek Canyon in the Chiricahua Mountains of southeastern Arizona and in the Flagstaff area of north central Arizona.





Figs. 5-7. *Abagrotis alampeta*. Scale approx. 1.4 $\times$. 5, *Abagrotis alampeta*, TYPE; 6, *Abagrotis alampeta*, paratype male with pale scaling; 7, *Abagrotis alampeta*, paratype female; 8, *Anicla cemolia*, TYPE.

Five female paratypes of *barnesi* Benjamin, 1921, p. 97, from the following localities are this species: Mohave, Co., Ariz. (2), Redington, Arizona (1), and Palmerlee, Cochise Co., Ariz. (2).

***Anicla cemolia*, n. sp.**

This species is very similar in appearance to the figure of *Agrotis altes* Druce, 1889, vol. 1, p. 285, vol. 3, pl. 27, fig. 12, described from Teapa, Tabasco, Mexico. Hampson, 1903, p. 525, treats *altes* as a junior synonym, the male, of *Agrotis ornea* Druce, 1889, vol. 1, p. 285, vol. 3, pl. 27, fig. 11, described from near Mexico City. The forewings of the new species are paler; there is no conspicuous black spot below 2A as figured by Druce for *altes* and *ornea*; and the hindwing is white, slightly hyaline in both sexes, not shaded outwardly with fuscous as in the male (*altes*) of *ornea* and not dark fuscous as in the female. This species differs from *Anicla infecta* (Ochs.) by its much smaller size, white hindwings, and narrowly pectinate male antennae.

Description: Antennae of male narrowly pectinate, of female simple and sparsely ciliate. Head and thorax light gray with a slight yellowish cast, with a sparse

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Figs. 3-4. *Anicla cemolia*. Scale 1 mm. 3, paratype, Windley Key, Monroe Co., Florida, male genitalia, slide: JGF 5276. 3a, paratype, aedoeagus, slide: JGF 5276. 4, paratype, Key Largo, Monroe Co., Florida, female genitalia, slide: JGF 5272.

scattering of black scales and with a small patch of black scales at middle of collar (patagia). Forewing concolorous with head and thorax, light gray with a yellowish cast and with a scattering and clustering of black scales; the lines obsolescent; the basal line represented by a small black spot on costa near base of wing and a second black spot in fold below Cu; ante-medial line represented by a black spot on costa, a black spot in fold, and a diffuse cluster of black scales on the inner margin; postmedial line represented by a black spot on costa and vague line of black scales, the line excurved below costa, then slightly curved to inner margin; reniform a broad gray annulus with a pale central area and two black spots, the larger on the outer side, the smaller on the inner side; subterminal line diffuse, irregular, broad, blackish, area beyond subterminal line blackish, terminal line a series of black dots on the veins; fringe concolorous with ground color of wing. Hindwing white; two black spots near the apical angle representing the terminal line; fringe white.

Expanse: 25–28 mm.

Male genitalia as figured.

Female genitalia as figured.

TYPE: Male. Tavernier, Monroe Co., Florida, October 21, 1965, J. N. Todd. In Franclemont Collection.

PARATYPES: 14 males and 4 females, Tavernier, Monroe Co., Florida, August 16, 1955–October 23, 1955, J. N. Todd; 1 male in United States National Museum Collection, 2 males in Franclemont Collection, 11 males and 4 females in C. P. Kimball Collection; 8 males and 2 females, Key Largo, Monroe Co., Florida, March 27, 1965–April 27, 1965 and July 21, 1965–August 26, 1965, Mrs. Spencer Kemp; 3 males and 2 females in Franclemont Collection, 5 males in C. P. Kimball Collection; 1 male, Windley Key, Monroe Co., Florida, December 11, 1955, J. N. Todd; in Franclemont Collection; 1 female, Craig, Florida, April 16, 1956, J. N. Todd; in the United States National Museum Collection.

There are twenty males and five females from Tavernier Key and one male from Key Largo also before me, but the condition of these specimens is too poor to include them in the type series.

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